

REMARKS

The foregoing amendments and the present remarks are responsive to the Office Action mailed on 03/12/03. Claims **14, 15** are rewritten to include all the limitations of their corresponding non-elected independent claims as recommended by the Examiner. Claim **44** is cancelled without prejudice. Support for the amendments can be found, inter alia, in Applicants' specification and original claims.

Claims **14-28**, and **44-53** are pending in this application. Claims **1-13** and claims **29-43** have been previously cancelled without prejudice in response to a restriction requirement. By the foregoing amendments and the following remarks, the referenced remaining pending claims are now believed to be in condition for allowance and are presented for examination.

Discussion of the Office Action

In the Office Action of 03/12/03, the Examiner rejected claims **10, 14-22, 25-28, 44**, and **46-53** under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims **14, 15** and **44** are rejected for depending from non-elected claims. Claim **14** stands rejected under 35 U.S.C. §102(b) as anticipated by Smith et al. 98/XthE10. Claim **44** stands rejected under 35 U.S.C. §102(e) as anticipated by Bawendi et al. U.S. Patent 6,501,091. Claims **15, 17-22, 26-28, 46** and **47** are rejected for depending from a rejected claim.

Discussion of the rejection of claims 10, 14-22, 25-28, 44, and 46-53 under 35
U.S.C. §112, second paragraph

As set forth above, claims **10, 14-22, 25-28, 44, and 46-53** stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim **10**, claim **10** is a non-elected claim in response to a restriction requirement. Thus, the issue with regard to claim **10** is rendered moot.

Regarding claims **14, 15** and **44**, the Examiner states that these claims are rejected for depending from non-elected claims and must be rewritten to include all of the limitations of their corresponding non-elected independent claims. In light of the amendments to claims **14** and **15** and the cancellation of claim **44**, the issue is rendered moot.

Regarding claims **16-17, 25, and 48- 53**, the Examiner states that for these claims, the wording "capable of " is used. The Examiner adds, "[t]his is 'able' language which means that all that follows that wording might or might not be a limitation, which is indefinite." Applicants respectfully must traverse such an argument.

Under MPEP §2173.02, "The examiner's focus during examination of claims for compliance with the requirement for definiteness of 35 U.S.C. § 112, second paragraph is whether the claim meets the threshold requirements of clarity and precision, not whether more suitable language

or modes of expression are available...he or she should allow claims which define the patentable subject matter with a reasonable degree of particularity and distinctness.”

In addition, “In rejecting a claim under the second paragraph of 35 USC 112, it is incumbent on the examiner to establish that one of ordinary skill in the pertinent art, when reading the claims in light of the supporting specification, would not have been able to ascertain with a reasonable degree of precision and particularity the particular area set out and circumscribed by the claims.” *Ex parte Wu*, 10 USPQ 2d 2031, 2033 (B.P.A.I. 1989).

Applicants respectfully submit that **the claims** at issue **are clear** and **precise** and **not indefinite** and that Applicants’ specification enables one skilled in the art **to reasonably understand the scope of the claims in light of the specification** as mandated under MPEP §2173.02 and *Ex Parte Wu* respectively.

As an illustrative example, Applicants state, lines 20-23, page 6, and lines 1-2, page 7, **in the specification**, “[t]he method and device of the disclosed embodiments are concerned with controlling the properties of the nanocrystals and the traps of the pre-processed composite 10 to tailor the blue, red and green contents of the light emission of the pre-processed composite material 10 **[to control the white light emission of post-processed]** composite material.” Correspondingly, Applicants third element in amended **claim 15** (rewritten with claim 10’s limitations having the “capable of language”) states, “directing an energy beam at the pre-process composite

material to reduce the size of the plurality of nanocrystals and to reduce the number of the plurality of traps to produce [a post-processed] composite material [capable of] white light emission.” Thus, Applicants submit that amended claim 15, as one example, when read in light of the specification is clear and precise and reasonably defines to one skilled in the art what the claimed post processed material is capable of achieving. A similar analysis can be made for each of rejected claims 16-17, 25, and 48- 53 with respect to the wording “capable of” when read in light of the specification. Therefore, Applicants call upon the Examiner, as mandated under Ex Parte Wu, to establish that one of ordinary skill in the pertinent art would not have been able to ascertain the particular area set out and circumscribed by the wording “capable of” in the rejected claims with a reasonable degree of clarity and precision in view of Applicants’ specification.

Moreover, Applicants submit that the wording “**capable of**” is **not indefinite** under Section 112 because it is reasonably understood by patent practitioners, the PTO, and those skilled in the art as functional language that makes clear the boundaries of the subject matter for which protection is sought.

The published patent literature is replete with allowed claims that include such language. For example, the Examiner cites Bawendi et al, US Patent No. 6,501,091B, of record, as a reference in the 35 U.S.C. 102(e) rejection of cancelled claim 44 as discussed below. The PCT application, WO

99/50916, of record, as shown in the listed information disclosure statement, also to Bawendi et al, which claims priority to US Patent No. 6,501,091B, uses the wording "capable of" as a functional limitation in claims 10, 29, and 30. Specifically, claim 30 in the WO 99/50916 patent states, "The colloid of claim 29, where the precursor is a monomer which is **[capable of]** being reacted to form a polymer." Thus, even Bawendi et al, a cited reference practitioner, and one skilled in the art, recognizes such claim language.

Accordingly, the rejection of claims 16-17, 25, and 48- 53 under 35 U.S.C. §112, second paragraph, and the rejected claims that depend thereof, is deemed improper and is requested to be withdrawn.

Discussion of the rejection of claim 14 under 35 U.S.C. §102(b)

As set forth above, claims 14 stands rejected under 35 U.S.C. §102(b) as being anticipated by Smith et al. 98/XthE10. The Examiner states that Smith et al. disclose a material system of claim 1. Specifically, the Examiner asserts that the reference with regard to claim 1 "states a method comprising: directing an energy beam (page 3 laser annealing) at a pre-processed composite material (samples Z1, Z2 or Z3; page 2 line 2) having a matrix containing a plurality of nanocrystals and a plurality of traps (page 2 line 18) to reduce the size of the plurality of nanocrystals and the number of plurality of traps (page 3 lines 1-10) to produce a post-processes composite material." Applicants respectfully traverse the rejection.

Under §MPEP 706.02, it is well established that for a reference to support a rejection under 35 USC §102, “that reference [must teach every aspect] of the claimed invention.”

Applicants’ amended claim 14 is as follows:

A material system produced by:

directing an energy beam at a pre-processed composite material having a matrix containing a plurality of nanocrystals and a plurality of traps to reduce the size of said plurality of nanocrystals and the number of the plurality of traps to produce a post-processed material.

Applicants’ respectfully submit that **Smith et al. does not disclose nor suggest** the claimed reduction of the size of the plurality of the nanocrystals as shown by the above underlined bolded portion of Applicants amended claim 14. The Examiner points to page 3, lines 1-10 of Smith et al. as evidencing the nanocrystal reduction as claimed by Applicants. That referenced section describes eliminating traps, eliminating deep trap states and producing a dramatic increase in the intensity of the photoluminescence from trap states but does not disclose nor suggest that the directed energy beam reduces the size of the plurality of nanocrystals; i.e., it does not teach every aspect of the invention as mandated under §MPEP 706.02.

Accordingly, Applicants respectfully submit, that the rejection of claim 14 under 35 U.S.C. §102(b), is improper and should be removed.

Discussion of the rejection of claim 44 under 35 U.S.C. §102(e)

As set forth above, claims **44** stands rejected under 35 U.S.C. §102(e) as being anticipated by Bawendi et al U.S. Patent 6,501,091. In light of the cancellation of claim **44**, the issue is rendered moot.

ALLOWABLE SUBJECT MATTER

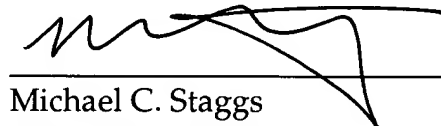
The Examiner states that claims **23, 24** and **45** are allowed. It is respectfully submitted that the rejections of claims **15, 16, 25** and **45-53** and dependent claims **17-22, 26-28, 46** and **47** under 35 U.S.C. §112, second paragraph, which contain allowable subject matter, have been overcome and are now allowable based on the above arguments and therefore have not been rewritten independently or amended.

CONCLUSION

The undersigned respectfully submits that, in view of Applicants' amendments and arguments, the rejections of the claims raised in the Office Action dated March 12, 2003 have been fully addressed and overcome, and the present application is believed to be in condition for allowance. It is respectfully requested that this application be reconsidered, that claims **14-28**, and **45-53** be allowed, and that this case be passed to issue. In the event that the Examiner finds any remaining impediment to the prompt allowance of these claims that can be clarified with a telephone conference, he is respectfully requested to initiate the same with the undersigned at (925) 422-3682.

Respectfully submitted,

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